

## MANUFACTURE OF COMPOUND SEMICONDUCTOR DEVICE

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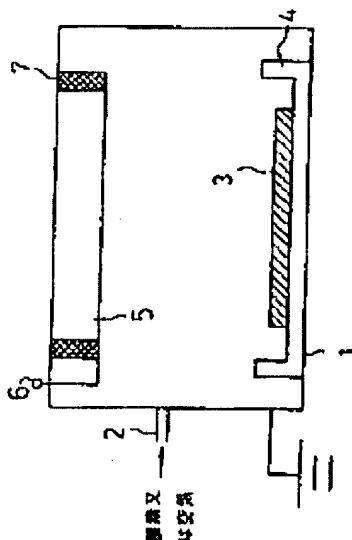
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### Abstract of JP3011634

**PURPOSE:**To form a MIS-type element or the like whose electric characteristic is good and which is stable by a method wherein an oxide film of a III-V compound semiconductor is formed, by using ozone, on the surface of a III-V compound semiconductor which contains In as one constituent element and an insulating film is deposited on it. **CONSTITUTION:**An oxide film of a III-V compound semiconductor is formed, by using ozone, on the surface of a III-V compound semiconductor which contains In as one constituent element; an insulating film is deposited on the oxide film. An ozone oxidation operation is executed while ozone generated by corona discharges 5, 6 flows to the surface of the III-V compound semiconductor. During this process, a temperature of a semiconductor 3 can be selected at about room temperature; it is possible to avoid that the surface of the semiconductor 3 is damaged by heat. Since a dry process is used, a contamination by impurities is not produced. In addition, since the oxidation operation by ozone is caused uniformly and a reaction rate is slow, a dense oxide film is formed. Thereby, it is possible to form a MIS(metal insulator semiconductor) type element or the like whose electric characteristic is good, whose change with the elaps of time is not caused and which is stable.



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